

# Factors Affecting Growth of Sulfate-Reducing Bacteria Isolated from Tropical Soil

M. O. Ilori<sup>\*,a</sup>, A. M. Okonkwo<sup>a</sup> and M. Bamidele<sup>b</sup>

<sup>a</sup> Department of Biological Sciences, University of Lagos, Akoka, Yaba, Lagos, Nigeria

<sup>b</sup> National Institute of Medical Research, 6, Edmond Crescent, Yaba, Lagos

\* Author for correspondence and reprint requests

Z. Naturforsch. **54c**, 613–616 (1999);  
received July 1/December 10, 1998

Sulfate-Reducing Bacteria, Lactate, pH, Temperature, Sodium Chloride

Sulfate-reducing bacteria (SRB) were isolated from soils around corroded pipelines and tanks. High numbers of the organisms occurred in areas closest to the corroded tanks and pipelines. Morphological types corresponding to rod, spirilloid, vibrioid and coccoid were encountered. All the organisms utilized lactate as carbon and energy source. None could grow at temperatures higher than 40 °C. All the isolates grew at 1% (w/v) NaCl while none could grow at 8% (w/v) NaCl. All the isolates grew at pH 7.0–7.5. Growth was not recorded at pH below 5.5 and above 8.0. These factors may be useful in manipulating tropical soil environments to reduce activities of SRB in corrosion of pipelines and tanks.